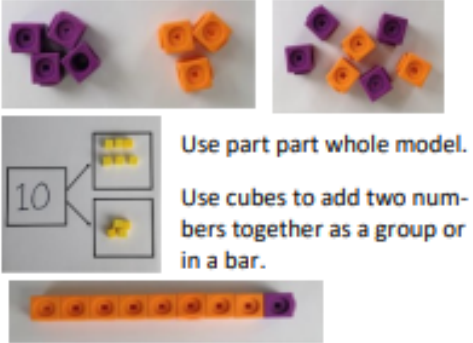
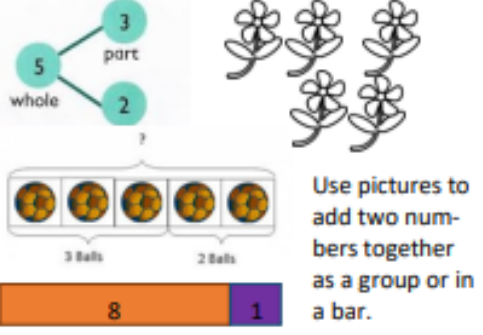


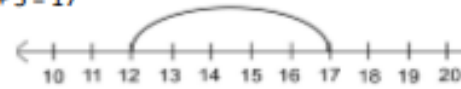
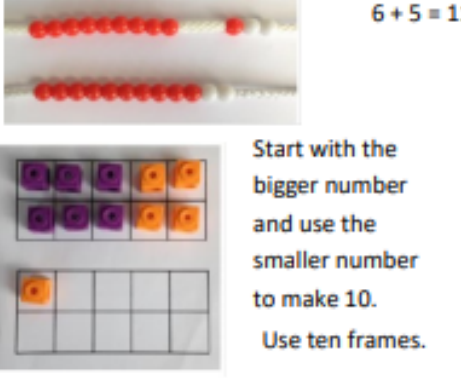
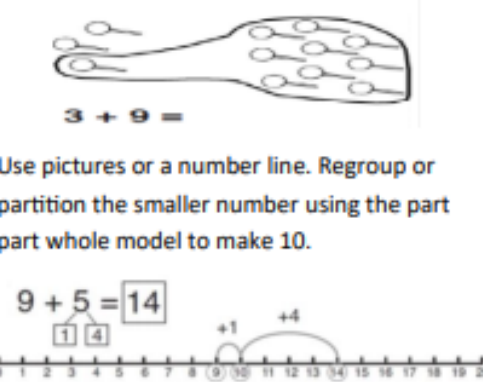

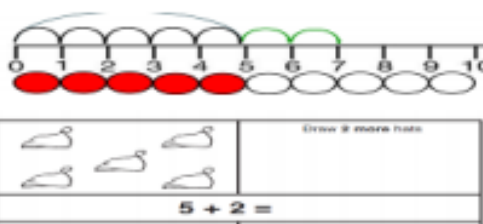
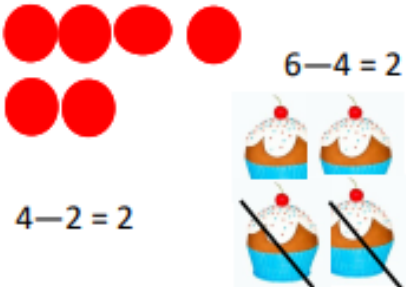
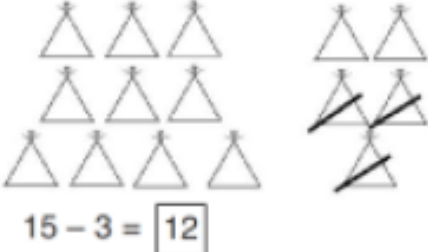
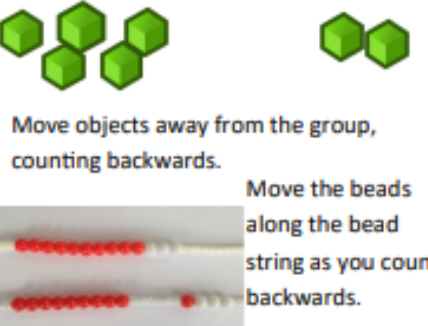
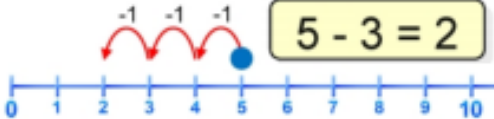
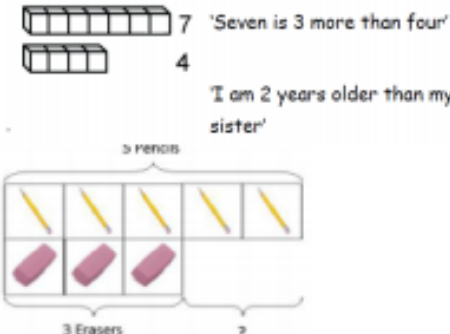
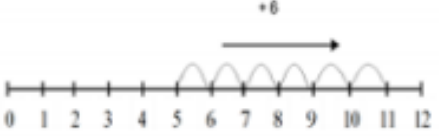


# Chapel St Leonards Primary School Calculation Policy

# Y1 ADDITION +

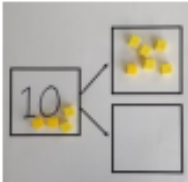
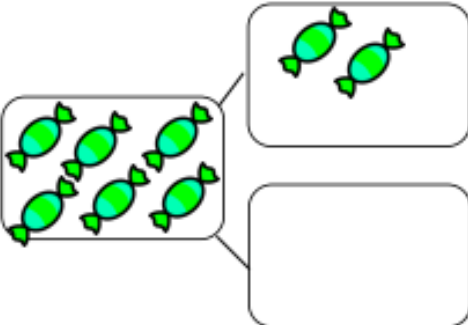


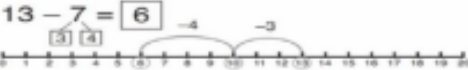


Objective & Strategy	Concrete	Pictorial	Abstract
<p>Combining two parts to make a whole: part- whole model</p>	 <p>Use part part whole model.</p> <p>Use cubes to add two numbers together as a group or in a bar.</p>	 <p>Use pictures to add two numbers together as a group or in a bar.</p>	<p><math>4 + 3 = 7</math></p>  <p><math>10 = 6 + 4</math></p> <p>Use the part-part whole diagram as shown above to move into the abstract.</p>
<p>Starting at the bigger number and counting on</p>	 <p>Start with the larger number on the bead string and then count on to the smaller number 1 by 1 to find the answer.</p>	<p><math>12 + 5 = 17</math></p>  <p>Start at the larger number on the number line and count on in ones or in one jump to find the answer.</p>	<p><math>5 + 12 = 17</math></p> <p>Place the larger number in your head and count on the smaller number to find your answer.</p>
<p>Regrouping to make 10.</p> <p><i>This is an essential skill for column addition later.</i></p>	 <p><math>6 + 5 = 11</math></p> <p>Start with the bigger number and use the smaller number to make 10.</p> <p>Use ten frames.</p>	 <p><math>3 + 9 =</math></p> <p>Use pictures or a number line. Regroup or partition the smaller number using the part part whole model to make 10.</p> <p><math>9 + 5 = 14</math></p>	<p><math>7 + 4 = 11</math></p> <p>If I am at seven, how many more do I need to make 10. How many more do I add on now?</p>
<p>Represent &amp; use number bonds and related subtraction facts within 20</p>	 <p>2 more than 5.</p>	 <p><math>5 + 2 =</math></p>	<p>Emphasis should be on the language</p> <p>'1 more than 5 is equal to 6.'</p> <p>'2 more than 5 is 7.'</p> <p>'8 is 3 more than 5.'</p>

Chapel St Leonards Primary School Calculation Policy

Objective & Strategy	Concrete	Pictorial	Abstract
Taking away ones.	<p>Use physical objects, counters, cubes etc to show how objects can be taken away.</p>  <p><math>6 - 4 = 2</math></p> <p><math>4 - 2 = 2</math></p>	 <p><math>15 - 3 = 12</math></p> <p>Cross out drawn objects to show what has been taken away.</p>	<p><math>7 - 4 = 3</math></p> <p><math>16 - 9 = 7</math></p>
Counting back	 <p>Move objects away from the group, counting backwards.</p> <p>Move the beads along the bead string as you count backwards.</p>	 <p>Count back in ones using a number line.</p>	<p>Put 13 in your head, count back 4. What number are you at?</p>
Find the Difference	<p>Compare objects and amounts</p>  <p>'Seven is 3 more than four'</p> <p>4</p> <p>'I am 2 years older than my sister'</p> <p>3 Pencils</p> <p>3 Erasers</p> <p>?</p> <p>Lay objects to represent bar model.</p>	<p>Count on using a number line to find the difference.</p> 	<p>Hannah has 12 sweets and her sister has 5. How many more does Hannah have than her sister.?</p>

Y1  
SUBTRACTION -

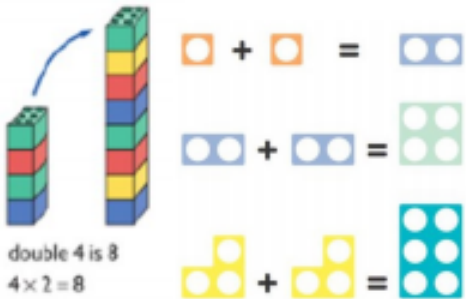

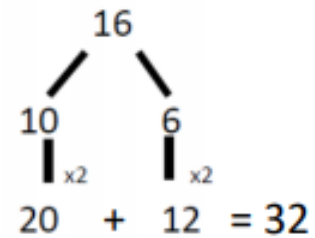
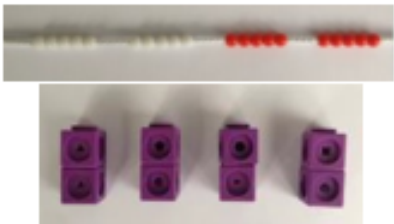

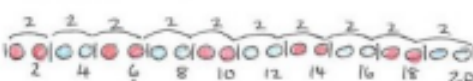


# Chapel St Leonards Primary School Calculation Policy

Objective & Strategy	Concrete	Pictorial	Abstract		
<p><b>Represent and use number bonds and related subtraction facts within 20</b></p> <p>Part Part Whole model</p>	 <p>Link to addition. Use PPW model to model the inverse.</p> <p>If 10 is the whole and 6 is one of the parts, what is the other part?</p> <p><math>10 - 6 = 4</math></p>	 <p>Use pictorial representations to show the part.</p>	<p>Move to using numbers within the part whole model.</p> 		
<p><b>Make 10</b></p>	<p><b>14 - 9</b></p>  <p>Make 14 on the ten frame. Take 4 away to make ten, then take one more away so that you have taken 5.</p>	<p><b>13 - 7</b></p>  <p>Jump back 3 first, then another 4. Use ten as the stopping point.</p>	<p><b>16 - 8</b></p> <p>How many do we take off first to get to 10? How many left to take off?</p>		
<p>Bar model</p>	 <p><math>5 - 2 = 3</math></p>		<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 70%;">8</td> <td style="width: 30%;">2</td> </tr> </table> <p><math>10 = 8 + 2</math></p> <p><math>10 = 2 + 8</math></p> <p><math>10 - 2 = 8</math></p> <p><math>10 - 8 = 2</math></p>	8	2
8	2				

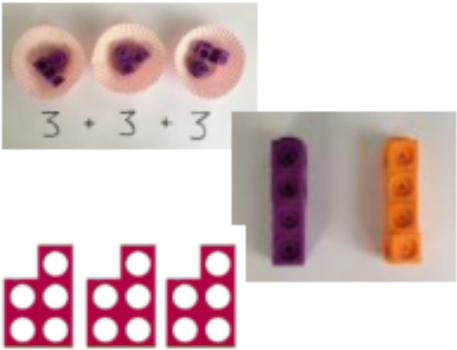
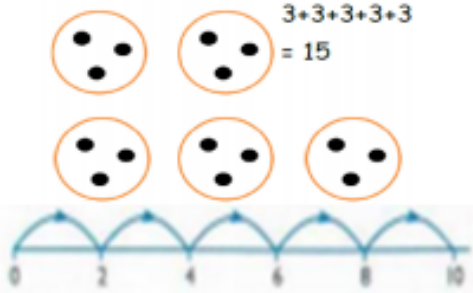

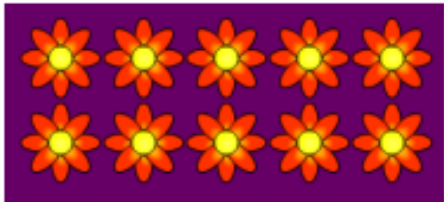
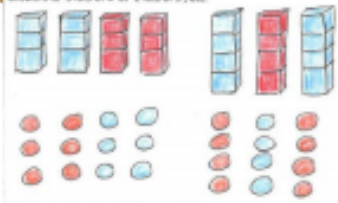
# Y1 SUBTRACTION -

# Chapel St Leonards Primary School Calculation Policy

# Y1 MULTIPLICATION X

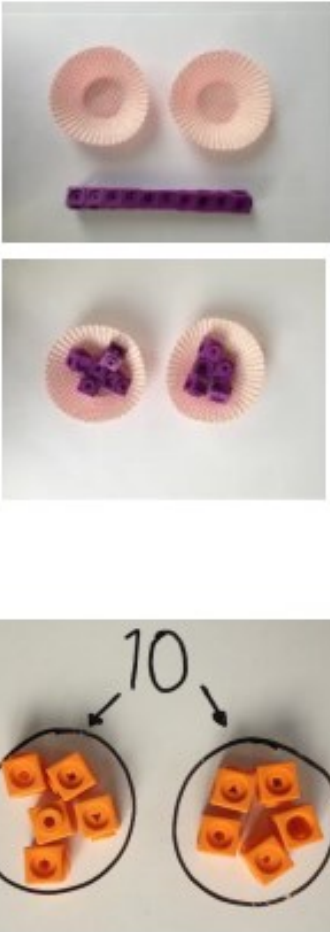
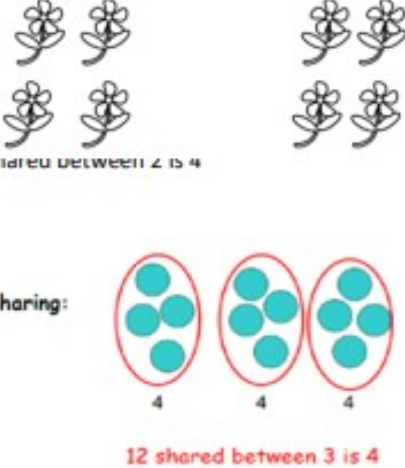
Objective & Strategy	Concrete	Pictorial	Abstract
<p>Doubling</p>	<p>Use practical activities using manipulatives including cubes and Numicon to demonstrate doubling</p>  <p>double 4 is 8 <math>4 \times 2 = 8</math></p>	<p>Draw pictures to show how to double numbers</p> <p style="text-align: center;">Double 4 is 8</p> 	<p>Partition a number and then double each part before recombining it back together.</p>  <p style="text-align: center;"><math>20 + 12 = 32</math></p>
<p>Counting in multiples</p>	<p>Count the groups as children are skip counting, children may use their fingers as they are skip counting.</p> 	 <p>Children make representations to show counting in multiples.</p> 	<p>Count in multiples of a number aloud.</p> <p>Write sequences with multiples of numbers.</p> <p>2, 4, 6, 8, 10</p> <p>5, 10, 15, 20, 25, 30</p>
<p>Making equal groups and counting the total</p>	 <p><math>\square \times \square = 8</math></p> <p>Use manipulatives to create equal groups.</p>	<p>Draw  to show <math>2 \times 3 = 6</math></p> <p>Draw and make representations</p>	<p style="text-align: center;"><math>2 \times 4 = 8</math></p>

Chapel St Leonards Primary School Calculation Policy

Objective & Strategy	Concrete	Pictorial	Abstract
Repeated addition	 <p>Use different objects to add equal groups</p>	<p>Use pictorial including number lines to solve prob</p> <p>There are 3 sweets in one bag. How many sweets are in 5 bags altogether?</p>  <p><math>3+3+3+3+3 = 15</math></p>	<p>Write addition sentences to describe objects and pictures.</p>  <p><math>2+2+2+2+2 = 10</math></p>
Understanding arrays	<p>Use objects laid out in arrays to find the answers to 2 lots 5, 3 lots of 2 etc.</p> 	<p>Draw representations of arrays to show understanding</p> 	<p><math>3 \times 2 = 6</math></p> <p><math>2 \times 5 = 10</math></p>



# Chapel St Leonards Primary School Calculation Policy

Objective & Strategy	Concrete	Pictorial	Abstract
<p>Division as sharing</p> <p><i>Use Gordon ITPs for modelling</i></p>	 <p>I have 10 cubes, can you share them equally in 2 groups?</p>	<p>Children use pictures or shapes to share quantities.</p>  <p>8 shared between 2 is 4</p> <p>Sharing:</p> <p>12 shared between 3 is 4</p>	<p>12 shared between 3 is</p> <p style="text-align: center;">4</p>

Y1

DIVISION ÷